

NEMOPHILA

Meeting and Field Guide

CALIFORNIA BOTANICAL SOCIETY

MARCH 11, 1920

NUMBER 7

The purpose of the Society is to promote the botanical study and investigation of California plants, to diffuse knowledge concerning them, and by lectures, field-trips, exhibitions and publications to deepen interest in the native flora amongst the people of California.

THE ANNUAL DINNER.

The annual dinner of the Society will take place at the Faculty Club, University of California grounds, on Saturday evening, March 20, 6:15 p. m. The dinner will be in honor of Mrs. J. B. Smith, founder of the Department of Botany in Mills College. Price per cover \$2.00. Remit before Wednesday, March 17, to Miss Ehlers, Secretary, 2613 Durant Ave., Berkeley (Tel. Berk. 3699). Members who desire to bring guests should send in names early to the committee at Miss Ehler's address.

FIELD TRIPS AND MEETINGS.

Sunday, March 14. Take 8:15 Sausalito ferry from San Francisco to Mill Valley. Walk by pipe line and railroad to Muir Woods and lunch. Return by west branch Redwood Creek, Rattlesnake Camp and fire trail to Mill Valley. Ten miles. Round trip, Mill Valley, 43 cents. Leaders, Miss Elizabeth Smith, Miss Anna Ehlers.

Sunday, March 28. Deferred trip to the Guadalupe Mines, Santa Clara Co. The members who bought seats for the cancelled February 1 trip will be given first place. No places are at present vacant. Meet corner 13th St. and Broadway, Oakland, 8 a. m. Bring lunch. Coffee. Leader, Mr. Harold E. Parks.

Saturday, April 3, 7:45 p. m. Annual meeting. Election of officers. It is expected to secure a well-known botanist as speaker but arrangements are not yet completed. Full announcement later.

Sunday, April 11. Leona Cañon. Meet at end of Leona (Mills College) car line at 10 a. m. Walk up Leona Cañon to head; cross ridge and follow cañon down to Sequoiah Country Club valley and out to car line at 88th Ave. and Foothill Boulevard. 7 miles. Lunch. Coffee. Leader, Prof. H. E. McMinn.

Thursday, April 15. Annual dues, \$1.00, are due and payable. Please remit to the Secretary, Miss Ehlers, 2613 Durant Ave., Berkeley.

Sunday, April 18. Pine Cañon and base of Mt. Diablo. *Calochortus pulchellus*, *Anemopsis*, etc. Take 8:30 a. m. Antioch train at 40th and Shafter sts., Oakland, to Meinert Station. Walk to Pine Cañon and lunch at Castle Rocks. Return to Meinert for 6:16 p. m. train. Ten miles. Round trip to Meinert, \$1.25. Leader, Mr. C. W. Carruth.

SQUAW CARPET FOR GROUND COVER.

While at great expense and pains we search the whole world for exotics to adorn our gardens and parks it often happens that we overlook native plants which are fully as beautiful and valuable. One such is *Ceanothus prostratus*, the Squaw Carpet or Mahala Mat, of our Sierra and Coast Ranges. It forms a close matted carpet densely foliaged with shapely evergreen leaves topped in springtime with a cloud of deep blue clustered flowers, and later on with queer little three-cornered fruits.

Its deep root system renders it resistant to drought, but makes it difficult to transplant mature specimens. It is readily propagated, however, either by seed or by cuttings, or by seedlings which sprout in dense masses wherever fire has destroyed the parent growth.—Geo. B. Furniss.

Another desirable plant is the Azalea of our mountain stream banks, *Rhododendron occidentale*. Rooted stocks are easily transplanted, and thrive well in half-shade if only the deep irrigation it needs is provided for by a joint of sewer pipe planted upright beside it and filled daily during dry weather.

The other *Rhododendron*, *R. californicum*, of our northern coast is more difficult to secure and domesticate and perhaps in garden culture will never show the glory of bloom which it wears on its native heath. But it is well worth trying by any one who prizes such souvenirs of the sun.—C. B. Bradley.

CHRISTMAS FLOWERING ON PT. REYES.

The twenty-six plants of the following list were all found in bloom by Professor H. E. McMinn and Mr. W. W. Carruth near Inverness, Marin Co., on December 26, 1919: *Anagallis arvensis*, *Anthemis cotula*, *Aster chilensis*, *Baccharis pilularis*, *Brassica campestris*, *Castilleja* sp., *Cotula coronopifolia*, *Diplacus glutinosus*, *Erigeron canadensis*, *Eschscholtzia californica*, *Garrya elliptica*, *Grindelia cuneifolia*, *Grindelia robusta*, *Gnaphalium* sp., *Hypochaeris radicata*, *Iris macrosiphon*, *Lathyrus* sp., *Montia* sp., *Oxalis corniculata*, *Rubus parviflorus*, *Rubus vitifolius*, *Senecio* sp., *Trifolium* sp., *Umbellularia californica*, *Viola canina* var *adunca*, *Viola sarmentosa*.

GENETIC INVESTIGATION OF CREPIS.

The Genetics Division of the Agricultural Department of the University of California is investigating the genus *Crepis*. This genus is remarkable in having several species with very low chromosome numbers, that is with only six, eight and ten chromosomes in the somatic cells—three, four or five, respectively, in the germ cells.

Breeding experiments with and cytological studies of several European species are now under way. One of these is *Crepis capillaris* (*virens*) which has been introduced into California. The Division would like to receive seeds of this or any other species of *Crepis* found in California, especially such native species as *occidentalis* and *nana*. Because of the low chromosome numbers, this genus seems to offer promising material with which to test various recently proposed theories of heredity and evolution which have aroused widespread interest among biologists. Packets may be addressed to the Genetics Division, College of Agriculture, Berkeley.

THE VITALITY OF REDWOOD

In behalf of the Save the Redwood League, Dr. W. L. Jepson gave a lecture, illustrated by lantern slides, upon the life history of the Redwood at the regular meeting of February 14. The Redwood trunk normally contains no resin, a fact of utmost importance in a forest so subject to the hazard of fire. When a tree is finally burned down or overthrown hundreds, or even thousands, of crown sprouts arise, some of which eventually grow to the size of the parent tree. This circle of trees makes at, or near, the surface of the ground, a continuous woody growth around the hollow occupied by the parent tree. This hollow is spoken of as a "goose nest." The diameter of the "goose nest" is often taken as evidence of the existence of gigantic prehistoric trees up to 84 feet in diameter. This reasoning is, however, fallacious. The circle may arise at some distance from the trunk on the outer part of the root-crown, or again, a third circle may arise externally to the first circle, or yet again a goose nest may become much enlarged by fire. Furthermore, a circle may, and frequently does, arise around a pair of trunks standing closely together.

The Redwood is frequently spoken of as a relic, as a survival. It is indeed a survival, but a most successful survival. No other conifer equals it in its prodigious forest stand, probably no other conifer has to such a degree immunity from disease, no other conifer has such remarkable vitality—such unusual reproductive power, and no other conifer has so successfully developed means for resisting forest fires. On account of its unique systematic position and its historical and biological interest we find the reasons for desiring a large body of primitive Redwood to be set aside as a National Redwood Park for recreation uses and for the purposes of scientific investigation.

SPRING IN THE SAN JOAQUIN VALLEY, 1844

To-day we travelled steadily and rapidly up the valley; for, with our wild animals, any other gait was impossible, and making about five miles an hour. About 1 o'clock we came again among innumerable flowers; and a few miles further, fields of the beautiful blue-flowering lupine, which seems to love the neighborhood of water, indicated that we were approaching a stream. We here found this beautiful shrub in thickets, some of them being 12 feet in height. Occasionally three or four plants were clustered together, forming a grand bouquet, about 90 feet in circumference, and 10 feet high; the whole summit covered with spikes of flowers, the perfume of which is very sweet and grateful. A lover of natural beauty can imagine with what pleasure we rode among these flowering groves, which filled the air with a light and delicate fragrance. We continued our road for about half a mile, interspersed through an open grove of live oaks, which, in form, were the most symmetrical and beautiful we had yet seen in this country. The ends of their branches rested on the ground, forming somewhat more than a half-sphere of very full and regular figure, with leaves apparently smaller than usual.

The California poppy, of a rich orange color, was numerous to-day. Elk and several bands of antelope made their appearance.

Our road was now one continued enjoyment; and it was pleasant, riding among this assemblage of green pastures with varied flowers and scattered groves, and out of the warm green spring, to look at the rocky and snowy peaks where lately we had suffered so much. Emerging from the timber, we came suddenly upon the Stanislaus river, where we hoped to find a ford, but the stream was flowing by, dark and deep, swollen by the mountain snows; its general breadth was about 50 yards.—Capt. John C. Fremont, U. S. A., in the San Joaquin Valley, Alta California, Republic of Mexico, Mar. 27, 1844.